Spokane Regional Clean Air Agency

Date: April 27, 2018

To: Jill Schulte

CC: Laurie Hulse-Moyer, Caroline Sun, Julie Oliver

From: Margee Chambers & Mark Rowe

Subject: Spokane County PM10 and CO Design Values for Air Monitoring Network Report

PM_{10} Design Values

Included in this memo are the 5-year and 3-year design values for the Spokane County Maintenance Area, in Spokane, Washington. The design values are based on FRM and FEM 24-hour PM_{10} monitoring data from the Augusta Avenue site (530630021), in Spokane, Washington.

The design values below are shown with and without the Ecology i-flagged PM_{10} exceedance data. In 2017, the western United States and Canada experienced a severe wildfire season, resulting in significant wildfire smoke impacts that caused in four PM_{10} exceedances (September 4, 5, 6, and 7, 2017) in Spokane County, Washington. In 2013, eastern Washington experienced a haboob, a very strong dust storm, contributing to one PM_{10} exceedance (September 15, 2013), in Spokane County, Washington.

A 5-year PM10 design value below 98 $\mu g/m^3$ demonstrates that the Spokane County Maintenance Area continues to qualify for the LMP approach.

	2013-2017 LMP Design Value (DV)
DV with i-flagged data	168 $\mu g/m^3$
DV without i-flagged data	79 $\mu g/m^3$

A 3-year PM_{10} design value at or below 1.0 demonstrates compliance with the PM_{10} NAAQS. The design value is the number of 24-hour exceedances of 150 $\mu g/m^3$, averaged over three years.

	2015-2017 NAAQS Design Value (DV)
DV with i-flagged data	1.3
DV without i-flagged data	0.0

The 2017 wildfire smoke impacts generated four PM_{10} exceedances triggering the Spokane County PM_{10} Maintenance Plan (PM_{10} LMP) contingency measures. The contingency measures in the PM_{10} LMP are for road dust, windblown dust and solid fuel burning devices. The contingency measures do not address wildfire air quality impacts; therefore they have not been implemented. SRCAA and Ecology are exploring options to remove the exceedance data when determining compliance with NAAQS and the limited maintenance plan.

CO Design Values

On July 14, 2016, Federal Register # 81 FR 45417, the EPA approved an alternate method of verification of attainment of the CO NAAQS and qualification for the limited maintenance plan option under 40 CFR 58.14(c). Under this alternative, EPA considers the limited maintenance plan criteria met and continued verification of attainment of the CO NAAQS if the total of the three predominate CO emission source categories calculated as part of the triennial emissions inventory (onroad mobile, nonroad, and residential wood combustion) remain below the corresponding total of the 2002 emission inventory source categories approved at the time the Spokane-area was redesignated to attainment. SRCAA and Ecology will compare future year 2017, 2020 and 2023 triennial emission analysis results to the baseline 2002.

The 2015 limited maintenance plan included the most up to date emissions inventory data available, including 2015 MOVES modeling of onroad emissions. The total annual emissions of the three source categories for the maintenance area was 63,934 tons per year. This 2015 total is well below the corresponding total of three emission categories from the 2002 emissions inventory which was 114,559 tons per year.

	Onroad	**Nonroad**	**Residential wood combustion**	**Total**
2002	78,868 tons/yr	20,449 tons/yr	15,242 tons/yr	114,559 tons/yr
2015	47,262 tons/yr	9,458 tons/yr	7,214 tons/yr	63,934 tons/yr

Therefore, the Spokane CO maintenance area continues to qualify for the limited maintenance plan option and continued verification of attainment of the CO NAAQS. SRCAA and Ecology's next analysis will be with the 2017 triennial emissions inventory. Ecology anticipates the 2017 triennial emissions inventory data may be available in first quarter of 2019, allowing SRCAA and Ecology to provide analyses in next year's monitoring network report.